Appendix C

Field Forms

AECOM

Well/Piezo ID: M-8

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/10/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 35.22 c. Casing Material PVC e. Length of Water Column 18.25 (a-b)

b. Water Table Depth 16.97 d. Casing Diameter 2 f. Calculated Well Volume (gallons) 3.12
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check Valve / Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 9.36
- Maximum Allowable Turbidity – NTUs
- Stabilization of parameters – %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1235	0	59.23	6.12	3464	11.1	1.10	121.8	Yellowish		
1240		60.11	6.28	3447	15.2	1.48	118.8			
1245		59.95	6.30	3449	12.2	1.27	118.4			
1250		59.50	6.30	3428	13.7	1.43	118.1			

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method:

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
M-8-20120	1D	6	HCl None	1,4 Diox VOCs	1250	01/10

Comments

Signature _____ Date 01/10/12

AECOM

Well/Piezo ID: MW-8R

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 50° Collector(s) TH DH

Date: 01/09/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 32.10 c. Casing Material PVC

b. Water Table Depth 14.14 d. Casing Diameter 4"

Well ☒ Piezometer ☐

e. Length of Water Column 17.96 (a-b)

f. Calculated Well Volume (gallons) 11.71
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check Valve/Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 35.13
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0	0	55.10	7.25	754	18.3	1.44	53.4	Clear	—	—
1800	11.71	60.09	6.90	16.76	13.9	1.27	-37.9	Clear	—	—
1820	23.42	60.47	6.87	1727	10.0	.99	-103.2	Clear	—	—
1840	35.13	60.44	6.85	1714	7.01	.73	-107.0	Clear	—	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check Valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-8R-20120109		3	—	1,4 Diox	1840	01/09

Comments

Signature _____ Date 01/09/12

AECOM

Well/Piezo ID: MW-11B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No: 60240275-200
Site Location: Coffeyville
Weather Conds: Sun 50° Collector(s) T. Hemry, S. Walston

Date: 02/24/12
Time: Start - am/pm
Stop - am/pm

WATER LEVEL DATA: (measured from Top of Casing) Well ☒ Piezometer ☐

a. Total Well Length —
c. Casing Material PVC
e. Length of Water Column — (a-b)

b. Water Table Depth 16.19
d. Casing Diameter 2"
f. Calculated Well Volume (gallons) —
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ — well volumes) —
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	—

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # - Page # -

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0	.1	15.15	6.58	3.134	67.4	6.60	-72.8	clear	None	
3	.2	15.46	6.66	3.186	64.2	6.24	-92.3			
6	.3	15.55	6.71	3.150	58.9	5.82	-103.3			
9	.4	15.65	6.77	3.153	59.2	5.97	-106.3			
12	.5	15.58	6.82	3.153	64.1	6.32	-109.2			

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☒
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
20120224-MW11B	40ml vial	3	HCl	VOCs by 8260B	1355	02/24
	40ml vial	3		1,4-Dioxane by 8260 SIM		

Comments: TestAmerica - VOCs, trip blank
Accutest New England - 1,4 Dioxane, trip blank
Pump in well can't get TD

Signature [signature] Date 02/24/12

AECOM

Well/Piezo ID: MW-13B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No: 60240275-200
Site Location: Coffeyville
Weather Conds: Sun 50° Collector(s) T. Hemry, S. Walston
Date: 02/24/12
Time: Start - am/pm
Stop - am/pm

WATER LEVEL DATA: (measured from Top of Casing) Well ☒ Piezometer ☐

a. Total Well Length - c. Casing Material PVC e. Length of Water Column - (a-b)

b. Water Table Depth 15.18 d. Casing Diameter 2" f. Calculated Well Volume (gallons) -

1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ - well volumes) -
- Maximum Allowable Turbidity - NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used: Make YSI Model 556 Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # - Page # -

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0	.1	13.84	6.00	3.395	44.3	4.35	-118.6	Clear	None	
5	.2	13.92	6.01	3.400	44.3	4.15	-118.9			
6	.3	15.28	6.73	3.533	28.8	2.25	-127.8			
9	.4	15.38	6.79	3.553	24.0	2.23	-127.3			
12	.5	15.41	6.79	3.553	23.6	2.19	-128.2			

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☒
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
20120224-MW-13B	40ml vial	3	HCl	VOCs by 8260B	1342	02/24
	40ml vial	3		1,4-Dioxane by 8260 SIM		

Comments TestAmerica - VOCs, trip blank
Accutest New England - 1,4 Dioxane, trip blank
pump in well can't get TD

Signature [signature] Date 02/24/12

AECOM

Well/Piezo ID: MW-15B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No: 60240275-200
Site Location: Coffeyville
Weather Conds: [illegible] sun 50° Collector(s) T. Hemry, S. Walston

Date: 02/24/12
Time: Start — am/pm
Stop — am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length pump in place c. Casing Material PVC e. Length of Water Column — (a-b)

b. Water Table Depth 16.82 d. Casing Diameter 2" f. Calculated Well Volume (gallons) —
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ — well volumes) —
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # — Page # —

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0	.1	12.90	6.75	1.447	72.2	7.50	-250	clear	None	
3	.2	14.90	6.96	1.142	47.4	4.76	-91.6	clear	None	
6	.3	14.81	7.11	1.136	32.3	3.64	-100.6	clear	None	
9	.4	14.86	7.24	1.135	35.4	3.09	-103.4	clear	None	
12	.5	14.89	7.27	1.136	~~46.3~~ 34.6	2.51	-102.6	clear	None	

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☒
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
20120224-MW15B	40ml vial	3	HCl	VOCs by 8260B	1310	2/24
	40ml vial	3		1,4-Dioxane by 8260 SIM		

Comments TestAmerica - VOCs, trip blank
Accutest New England - 1,4 Dioxane, trip blank
Pump in place can't get to D

Signature [signature] Date 02/24/12

AECOM

Well/Piezo ID: MW-16B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No: 60240275-200
Site Location: Coffeyville
Weather Conds: Sun 50° Collector(s) T. Hemry, S. Walston

Date: 2/24/
Time: Start 1043 am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing) Well ☒ Piezometer ☐

a. Total Well Length — c. Casing Material PVC e. Length of Water Column — (a-b)

b. Water Table Depth 13.78 d. Casing Diameter 2" f. Calculated Well Volume (gallons) —
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ — well volumes) —
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used: Make YSI Model 556 Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # — Page # —

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0	.1	13.94	6.72	2.047	41.8	4.15	-84.7	clear	None	
3	.2	14.55	7.00	2.098	19.2	1.89	-107.3	Clear		
6	.3	14.67	7.11	2.113	14.9	1.35	-116.1	clear		
9	.4	14.64	7.15	2.118	11.3	1.13	-119.5	clear		
12	.5	14.71	7.13	2.127	9.5	.93	-124.3	Clear		

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☒
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
20120224-MW16B	40ml vial	3	HCl	VOCs by 8260B	1326	2/24
20120224-MW16B	40ml vial	3		1,4-Dioxane by 8260 SIM	1326	2/24

Comments TestAmerica - VOCs, trip blank
Accutest New England - 1,4 Dioxane, trip blank
Pump in place can't get TD

Signature _____ Date 02/24/12

AECOM

Well/Piezo ID: MW-17B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No: 60240275-200
Site Location: Coffeyville
Weather Conds: Sun 50°
Collector(s): T. Hemry, S. Walston
Date: 02/24/12
Time: Start 1110 am/pm
Stop — am/pm

WATER LEVEL DATA: (measured from Top of Casing)
Well ☒ Piezometer ☐

a. Total Well Length —
b. Water Table Depth 10.36
c. Casing Material PVC
d. Casing Diameter 2"
e. Length of Water Column — (a-b)
f. Calculated Well Volume (gallons) —
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ — well volumes) —
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # — Page # —

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0	.1	14.75	6.86	3.525	60.3	6.01	-68.7	clear	None	
3	.2	14.96	6.96	3.543	64.7	6.41	-88.6	↓	↓	
6	.3	15.03	7.00	3.541	40.9	4.32	-95.1			
9	.4	15.10	7.00	3.539	53.8	5.40	-99.4			
12	.5	15.04	6.99	3.542	53.6	5.81	-100.4			

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☒
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
20120224-MW-17B	40ml vial	3	HCl	VOCs by 8260B	1330	2/24
	40ml vial	3		1,4-Dioxane by 8260 SIM		

Comments: TestAmerica - VOCs, trip blank
Accutest New England - 1,4 Dioxane, trip blank
Dup-001 here
pump in place can't get TD

Signature

Date 02/24/12

All purge water taken to drums at Clean Harbors.

AECOM

Well/Piezo ID: MW-28B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 52° Collector(s) TH DH

Date: 01/09/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 35.87
b. Water Table Depth 19.06
c. Casing Material PVC
d. Casing Diameter 2

Well ☒ Piezometer ☐
e. Length of Water Column 16.81 (a-b)
f. Calculated Well Volume (gallons) 2.87
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check value / Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 8.62
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1410	0	61.12	7.33	843	12.3	1.20	-66.4	orange/tan	—	—
1415	2.50	60.67	7.31	801	13.5	1.33	-60.68	↓	—	—
1420	5.00	60.69	7.31	802	13.2	1.29	-60.70	clear	—	—
1425	8.62	60.07	7.34	742	11.4	1.12	-57.62	clear	—	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.
No stabilization required

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-28B-20120109		3		1,4 Dioxane	1430	01/09

Comments

Signature _____ Date 01/09/11

AECOM

Well/Piezo ID: MW-29BR

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: ~~Good~~ 50°
Collector(s) TH DH

Date: 01/09
Time: Start 1255 am/pm
Stop 1320 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 28.25
b. Water Table Depth 5.53
c. Casing Material PVC
d. Casing Diameter 2
Well ☒ Piezometer ☐
e. Length of Water Column 22.72 (a-b)
f. Calculated Well Volume (gallons) 3.69
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check Valve / Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 11.66
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters ~~10~~ %

c. Field Testing Equipment Used: Make YSI Model 556 Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1255	0	59.23	6.87	2858	35.8	3.56	11.1	Clear	None	Orange Iron
1300	4.0	60.18	6.90	1895	12.1	1.21	-59.8	↓	↓	↓
1305	8.0	60.37	6.89	1902	10.6	1.08	-63.7			
1310	12.0	61.48	6.74	2094	10.4	1.05	-69.8			

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.
No stabilization required

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check Valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-29BR-20120109		3		1,4 Diox	1315	01/09/12

Comments

Signature _____ Date 09/01/12
01/09/12

AECOM

Well/Piezo ID: MW-31B-

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 52° Collector(s) TH DH

Date: 1/9/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 28.82
b. Water Table Depth 8.14
c. Casing Material PVC
d. Casing Diameter 2
e. Length of Water Column 20.68 (a-b)
f. Calculated Well Volume (gallons) 3.54
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check Valve / Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 10.64
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1505	0	57.78	6.95	1429	4.8	.49	-20.4	brownish	—	—
1510	3.54	57.45	6.93	1451	9.1	.94	-1.1	Clear	—	—
1515	7.00	57.33	6.92	1451	9.3	.95	-0.2	Clear	—	—
1520	10.61	58.33	6.92	1470	8.0	.80	7.1	Clear	—	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-31B-20120109		3		1,4 Diox	1530	1/9

Comments

Signature _____ Date 01/09/12

AECOM

Well/Piezo ID: MW-33B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 52° Collector(s) TH DH
Date: 01/04/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)
a. Total Well Length 28.44 c. Casing Material PVC
Well ☒ Piezometer ☐
e. Length of Water Column 15.49 (a-b)
b. Water Table Depth 12.65 d. Casing Diameter 2
f. Calculated Well Volume (gallons) 2.64
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA
a. Purge Method (peristaltic, bailer, pump, etc.) Check Valve/Bailer
b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 7.95
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1616	0	59.59	6.85	1666	10.1	1.00	47.9	orange/ish	—	—
1620	2.64	60.93	6.88	1649	16.0	1.55	50.1		—	—
1625	5.28	59.99	6.86	1683	14.0	1.39	51.2		—	—
1630	7.95	60.21	6.91	1668	20.2	2.01	51.9	↓	—	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check Valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-33B-20120104	Vo as	3		1,4 D:ox	01/04/12	1640

Comments

Signature _____ Date 1/9/12

AECOM

Well/Piezo ID: MW-36B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 1/10
Time: Start ________ am/pm
Stop ________ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 35.51
c. Casing Material PVC
b. Water Table Depth 21.11
d. Casing Diameter 2

Well ☒ Piezometer ☐
e. Length of Water Column 14.4 (a-b)
f. Calculated Well Volume (gallons) 2.46
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check valve / Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 7.38
- Maximum Allowable Turbidity – NTUs
- Stabilization of parameters – %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _______ Page #_______

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0935	0	58.6	6.45	4070	11.3	1.12	112.6	brownish	–	–
0940	2.46	59.46	6.43	4093	16.2	1.49	113.1		–	–
0945	4.90	59.31	6.42	4090	11.0	1.09	112.2	↓	–	–
0950	7.38	60.02	6.41	4094	10.3	0.99	111.0	↓	–	–

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-36B-20120110		6	Hcl None	1,4 Diox VOC	1000	01/10

Comments

Signature [signature]

Date 01/10/12

AECOM

Well/Piezo ID: MW-37B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/10/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 32.71
b. Water Table Depth 21.33
c. Casing Material PVC
d. Casing Diameter 2
Well ☒ Piezometer ☐
e. Length of Water Column 11.38 (a-b)
f. Calculated Well Volume (gallons) 1.94
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check Valve / Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 11.38
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0820	0	54.32	6.56	3635	16.2	1.70	102.0	brown	—	silty
0825	1.94	54.28	6.55	3423	15.9	1.69	102.7	↓	—	↓
0830	3.88	54.29	6.54	3516	16.0	1.68	103.1		—	
0835	5.84	54.26	6.53	3615	16.4	1.72	103.5		—	

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.
~~Check~~

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-37B-20120110		3		~~FIELD~~ VOC	0840	1/10

Comments

Signature _____ Date 01/10/12

AECOM

Well/Piezo ID: PF-6B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 1/13/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☐ Piezometer ☒

a. Total Well Length 31.60 c. Casing Material PVC e. Length of Water Column _____ (a-b)

b. Water Table Depth 17.90 d. Casing Diameter 1 f. Calculated Well Volume (gallons) _____
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) _____
- Maximum Allowable Turbidity – NTUs
- Stabilization of parameters – %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1200		53.50	7.28	1242	19.6	2.02	64.3	brown		
1205		53.94	7.13	1239	17.0	1.80	55.9	↓		
1210		54.26	7.03	1386	16.5	1.69	55.9			
1215		56.95	6.85	1574	15.9	1.49	55.7			

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: _____

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-6B-20120113		3	HCl	VOC	1220	01/13/12

Comments _____

Signature [signature] Date 01/13/12

AECOM

Well/Piezo ID: PF-13B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/13/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☐ Piezometer ☒

a. Total Well Length 27.02 c. Casing Material PVC e. Length of Water Column _____ (a-b)

b. Water Table Depth 14.80 d. Casing Diameter < 1 f. Calculated Well Volume (gallons) _____
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) _____

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) _____
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1410		56.42	6.67	3343	15.0	1.45	-41.9	brownish	—	—
1415		56.39	6.67	3399	18.4	1.77	-40.6		—	—
1420		56.82	6.66	3428	20.5	2.00	-39.3		—	—
1425		57.53	6.66	3437	22.1	2.06	-25.1	V	—	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: _____

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-13B-20120113		3	HCl	VOC	1430	01/13/12

Comments _____

Signature _____ Date 01/13/12

AECOM

Well/Piezo ID: PF-14B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH
Date: 01/13/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)
a. Total Well Length 17.00 c. Casing Material PVC
b. Water Table Depth 23.52 d. Casing Diameter <1
Well ☐ Piezometer ☒
e. Length of Water Column _____ (a-b)
f. Calculated Well Volume (gallons) _____
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA
a. Purge Method (peristaltic, bailer, pump, etc.) _____
b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) _____
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %
c. Field Testing Equipment Used: Make Model Serial Number _____
d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1315		56.17	6.54	2.650	15.0	1.46	-3.9	clearly		
1320		55.01	6.72	2.516	17.8	1.99	-26.1			
1325		54.39	6.88	2.498	20.3	2.03	-64.7			
1330		53.25	6.89	2.413	25.2	2.70	-81.6	↓		

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: _____

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-14B-20120113		3	HCl	VOC	1335	01/13/12

Comments _____

Signature _____ Date 01/13/12

AECOM

Well/Piezo ID: PF-20B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: Collector(s) TH DH

Date: 01/12/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☐ Piezometer ☒

a. Total Well Length 32.43
c. Casing Material PVC
e. Length of Water Column 16.86 (a-b)

b. Water Table Depth 15.57
d. Casing Diameter 1
f. Calculated Well Volume (gallons) .72
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 2.16
- Maximum Allowable Turbidity – NTUs
- Stabilization of parameters – %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1000	0	52.35	7.28	1703	23.0	2.42	-90.2	brownish	–	–
1005	.72	52.19	7.18	1702	21.4	2.32	-98.6	↓	–	–
1010	1.44	52.61	6.98	1704	17.6	1.03	-102.3		–	–
1015	2.16	53.29	6.92	1695	8.2	.87	-115.7		–	–

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Peristaltic Pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-20B-20120112		3	HCl	VOCs	1120	1/12/12
Adams-A-20120112		3	None	1,4 Diox	1550	1/12/12

Comments

Signature [signature] Date 01/12/12

AECOM

Well/Piezo ID: PF-21B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/12/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing) PVC

a. Total Well Length 33.04 c. Casing Material ~~PVC~~ e. Length of Water Column 17.04 (a-b)

b. Water Table Depth 16.00 d. Casing Diameter 2 f. Calculated Well Volume (gallons) .73

Well ☐ Piezometer ☒

1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 2.19
- Maximum Allowable Turbidity – NTUs
- Stabilization of parameters – %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1215	0	49.56	7.14	1081	23.5	2.66	-131.2	clear	–	–
1220	.73	49.72	7.15	1095	22.4	2.53	-138.6	↓	–	–
1225	1.46	50.97	7.10	1103	19.2	1.96	-137.6	↓	–	–
1230	2.19	52.85	7.08	1132	15.0	1.58	-137.5	↓	–	–

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Peristaltic pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-21B-20112	20112	3	HCl	VOCs	1230	01/12/12

Comments

Signature [signature] Date 01/12/12

AECOM

Well/Piezo ID: PF-22B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/12/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☐ Piezometer ☒

a. Total Well Length 32.20 c. Casing Material PVC e. Length of Water Column 17.28 (a-b)

b. Water Table Depth 14.92 d. Casing Diameter 1 f. Calculated Well Volume (gallons) .74
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 2.23
- Maximum Allowable Turbidity – NTUs
- Stabilization of parameters – %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1325	0	48.51	7.13	1035	14.5	1.65	-153.0	clear	–	–
1330	.74	49.53	7.12	1039	13.7	1.58	-155.8	↓	–	–
1335	1.48	52.18	7.11	1328	10.2	.99			–	–
1340	2.23	57.16	7.10	1354	8.1	.82	-187.7		–	–

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Peristaltic Pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-22B-20120112		3	HCl	VOCs	1345	01/12/12

Comments _____

Signature _____ Date 01/12/12

AECOM

Well/Piezo ID: PF-23B

Ground Water Sample Collection Record

Client: Coffeyville
Project No:
Site Location: Clean Harbors
Weather Conds: 30° Collector(s) TH DH

Date: 01/12/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☐ Piezometer ☒

a. Total Well Length 33.05 c. Casing Material PVC e. Length of Water Column 16.80 (a-b)

b. Water Table Depth 16.25 d. Casing Diameter 1 f. Calculated Well Volume (gallons) .72
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 2.16
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
935	0	47.82	6.52	4401	19.6	2.23	-57.1	clear	-	-
940	.72	47.81	6.47	4407	18.8	2.12	-53.8	↓	-	-
945	1.44	50.12	6.50	5022	16.5	1.65	-48.6	↓	-	-
950	2.16	53.30	6.52	5298	14.2	1.49	-45.6	↓	-	-

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: _____

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-23B-20120112		3	HCl	VOCs	1000	01/12/12
PF-23BD-20120112		3	HCl	VOCs	1030	01/12/12

Comments: Dup for PF-23B-20120112 is PF-23BD-20120112

Signature _____ Date 01/12/12

AECOM

Well/Piezo ID: PF-24B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: Collector(s) TH DH

Date: 1/12/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☒

a. Total Well Length 35.10 c. Casing Material PVC e. Length of Water Column 17.80 (a-b)

b. Water Table Depth 17.30 d. Casing Diameter 1 f. Calculated Well Volume (gallons) .76
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) peristaltic pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 2.28
- Maximum Allowable Turbidity – NTUs
- Stabilization of parameters – %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0825	0	57.64	7.17	4346	24.8	2.49	-11.0	clear	–	–
0830	.76	58.83	7.08	4251	24.1	2.40	-28.2	↓	–	–
0835	1.52	58.02	6.85	4395	9.6	.96	-70.5	↓	–	–
0840	2.28	58.05	6.77	4390	8.7	.88	-89.9	↓	–	–

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: peristaltic pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-24B-20120112		3	HCL	VOCs	0845	1/12/12

Comments

Signature [signature] Date 01/12/12

AECOM

Well/Piezo ID: PF-25B

Ground Water Sample Collection Record

stick up 2.50

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/19/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☐ Piezometer ☒

a. Total Well Length 34.51
b. Water Table Depth 16.35
c. Casing Material PVC
d. Casing Diameter 1"
e. Length of Water Column 15.16 (a-b)
f. Calculated Well Volume (gallons) .65
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) peristaltic pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 1.96
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1015	0	14.34	6.65	3.660	—	6.42	-100	brownish	—	—
1020	.65	15.40	6.73	3.34	—	5.11	-115		—	—
1025	1.30	15.25	6.75	3.42	—	4.38	-129		—	—
1030	1.96	14.61	6.77	3.95	—	2.42	-135	↓	—	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Peristaltic Pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-25B-20120119		3	HCl	VOCs	1030	01/19/12
PF-25BD-20120119		3	HCl	VOCs	1130	01/19/12

Comments PF-25BD is dup

Signature _____ Date 01/19/12

AECOM

Well/Piezo ID: PF-26B

Ground Water Sample Collection Record

Stick up 2.15

Client: Cleam Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/19/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 34.95 c. Casing Material PVC

Well ☐ Piezometer ☒

e. Length of Water Column 18.70 (a-b)

b. Water Table Depth 16.25 d. Casing Diameter 1"

f. Calculated Well Volume (gallons) .80
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 2.41
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used:

Make	Model	Serial Number
Horiba		

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1140	0	17.26	6.12	3.47	—	5.03	-12	brownish	—	—
1145	.80	17.27	6.40	3.47	—	3.49	-35	↓	—	—
1150	1.60	16.92	6.51	3.80	—	4.63	-34		—	—
1155	2.41	16.76	6.48	3.67	—	3.41	-42	↓	—	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Peristaltic Pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-26B-20120119		3	HCl	VOCs	1200	01/19/12

Comments _____

Signature _____ Date 01/19/12

AECOM

Well/Piezo ID: PF-27B

Ground Water Sample Collection Record

Stickup - 2.60

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/19/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☐ Piezometer ☒

a. Total Well Length 33.08
b. Water Table Depth 16.62
c. Casing Material PVC
d. Casing Diameter 1"
e. Length of Water Column 16.46 (a-b)
f. Calculated Well Volume (gallons) .71
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 2.12
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1320	0	13.55	6.91	3.14	—	2.68	-110	brownish	—	—
1325	.71	13.95	6.97	3.02	—	2.83	-108		—	—
1330	1.42	14.46	6.99	2.56	—	3.14	-105		—	—
1335	2.12	14.60	7.01	2.35	—	3.32	-101	↓	—	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Peristaltic Pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-27B-20120119		6	HCl	VOCs	1340	01/19/12

Comments

Signature _____ Date 01/19/12

AECOM

Well/Piezo ID: PF-28B

Ground Water Sample Collection Record

stick up - 1.45

Client: Clean Harbors
Project No:
Site Location: Clean Harbors
Weather Conds: 30° Collector(s) TH DH

Date: 01/19/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 34.27 c. Casing Material _____ Well ☐ Piezometer ☒
e. Length of Water Column 18.45 (a-b)

b. Water Table Depth 15.82 d. Casing Diameter _____ f. Calculated Well Volume (gallons) .79
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 2.38
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1440	0	13.87	6.69	6.33	-	5.42	-27	brownish	-	-
1445	.79	14.01	6.41	6.72	-	5.00	-29	↓	-	-
1450	1.58	14.52	6.17	6.54	-	4.11	-34		-	-
1455	2.38	14.39	6.58	6.62	-	4.03	-39	↓	-	-

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Peristaltic pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-28B-20120119		6	HCl	VOCs	1500	01/19/12

Comments _____

Signature _____ Date 01/19/12

AECOM

Well/Piezo ID: PF-29B

Ground Water Sample Collection Record

Stick up 3.17

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/19/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 33.55 c. Casing Material PVC

Well ☐ Piezometer ☒

e. Length of Water Column 16.74 (a-b)

b. Water Table Depth 16.81 d. Casing Diameter 1"

f. Calculated Well Volume (gallons) .72
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 2.16
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1555		14.46	6.65	3.26	—	3.77	-74	brownish	-	-
1600		13.54	6.67	3.30	—	3.70	-88		-	-
1605		14.32	6.66	3.97	—	3.22	-94		-	-
1610		14.29	6.41	3.84	—	2.27	-105	↓	-	-

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Peristaltic Pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-29B-20120119		3	HCl	VOCs	1615	01/19/12

Comments _____

Signature _____ Date 01/19/12

AECOM

Well/Piezo ID: PF-30B

Ground Water Sample Collection Record

Stick up -2.80

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 35° Collector(s) TH DH

Date: 01/20/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 36.62
b. Water Table Depth 17.41
c. Casing Material PVC
d. Casing Diameter 4"
Well ☐ Piezometer ☒
e. Length of Water Column 19.21 (a-b)
f. Calculated Well Volume (gallons) .83
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 2.49
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0740	0	17.36	7.13	5.08	~~5.3~~	5.37	-79	brownish	—	—
0745	.83	17.24	7.14	5.08	—	5.32	-96	↓	—	—
0750	1.66	17.10	7.18	5.08	—	4.89	-103	↓	—	—
0755	2.49	17.03	7.19	5.10	—	4.35	-117	↓	—	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Peristaltic Pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-30B-20120120		3	HCl	VOC	0800	01/20/11

Comments

Signature _____ Date 1/20/12

AECOM

Well/Piezo ID: PF-31B

Ground Water Sample Collection Record

Stick up 3.86

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/20/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 32.84 c. Casing Material PVC

Well ☐ Piezometer ☒

e. Length of Water Column 15.13 (a-b)

b. Water Table Depth 17.71 d. Casing Diameter 1"

f. Calculated Well Volume (gallons) .65
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Peristaltic Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 1.95
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0930	0	13.63	7.54	1.56	—	7.30	-90	clear	—	—
0935	.65	13.57	7.60	1.24	—	6.19	-85	"	—	—
0940	1.30	14.11	7.55	1.27	—	5.31	-79	"	—	—
0945	1.95	14.59	7.35	1.09	—	5.55	-74	"	—	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Peristaltic Pump

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF-31-2012	0120	3	HCl	VOC	0945	01/20/12

Comments

Signature _____ Date 01/20/12

AECOM

PF-32B

Well/Piezo ID: ~~PB-32B~~

Ground Water Sample Collection Record

Client: CLEAN HARBORS
Project No:
Site Location: Coffeyville
Weather Conds: Cloudy; 30's, lt. breeze
Collector(s): S. WALSTON
Date:
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

2-7-12 1600

a. Total Well Length: 30.00
b. Water Table Depth: 12.89
c. Casing Material: PVC
d. Casing Diameter: 1"
Well ☐ Piezometer ☒
e. Length of Water Column: 17.11 (a-b)
f. Calculated Well Volume (gallons): 0.74
1" - 0.043 2" - 0.171 4" - 0.652

stickup 2.3 ft.

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.): developed 2-7-12; 3 gals removed
Development

2-8-12

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) 3 vol. SOP
- Maximum Allowable Turbidity N/A NTUs not req'd per PM
- Stabilization of parameters N/A %

30.10 TD
15.12 DTW
14.98 WC
X 0.043 = 0.644

c. Field Testing Equipment Used: Make YSI Model 556 MPS Serial Number KC

Purge - Bailer

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm) (mS/cm)	~~DO %~~	~~DO (mg/l)~~	ORP (mV)	Color	Odor	Other
1150	1.0	13.83	8.16	1.711			56.0	Clear	no	fill flow cell
1155	0.4	13.57	7.99	1.521			53.2	slt silty	brown - no	
1201	0.4	13.40	7.92	1.649			55.9	slt silty	No	
1204	0.4	13.45	7.76	1.823			51.7	slt silty		Sample @ 1204

DO not req'd per PM

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

2-8-12

SAMPLE COLLECTION: Method: bailer, bottom empty
Bailer

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF32B	40ml clear glass	3 - 40ml	HCl		1204	2-8-12

Comments: post-sample - remove appx. 10 bailers water/surge w/bailer to re-develop; DTW following this is 20.95

Signature _____ Date _____

AECOM

Well/Piezo ID: PF-32B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No: 60240275
Site Location: Coffeyville, KS
Weather Conds: Cloudy; 30's Collector(s) S. Walston

Date: _____
Time: Start _____ am/pm
Stop _____ am/pm

2-7-12 1600 **WATER LEVEL DATA: (measured from Top of Casing)**

Well ☐ Piezometer ☒

a. Total Well Length 30.00 c. Casing Material PVC e. Length of Water Column 17.11 (a-b)

b. Water Table Depth 12.89 d. Casing Diameter 1" f. Calculated Well Volume (gallons) 0.74

1" - 0.043 2" - 0.171 4" - 0.652

2-7-12 **WELL ~~PURGING DATA~~ DEVELOPMENT**

a. Purge Method (peristaltic, bailer, pump, etc.) 3 gals removed; agitate WC by reversing airflow and raise/lower tubing (Geotech peristaltic pump)

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ _____ well volumes)
- Maximum Allowable Turbidity _____ NTUs
- Stabilization of parameters _____ %

c. Field Testing Equipment Used: Make / Model / Serial Number
Water quality; water level meter: Heron 200' — YSI 556 MPS

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

2-8-12 WELL PURGING (Bailer) TO 30.10 DTW 15.12 WC 14.98 1vol 0.644 gal

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	~~DO %~~	~~DO (mg/l)~~	ORP (mV)	Color	Odor	Other
1150	1.0	13.83	8.16	1.271			56.0	clear	no	(fill flow cell)
1158	1.4	13.57	7.99	1.521			53.2	slt.silty	no	
1201	1.8	13.40	7.92	1.649			55.9	slt.silty	no	
1204	2.5	13.45	7.76	1.823			51.7	slt.silty	no	Sample

(mS/cm^2)

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

2-8-12 **SAMPLE COLLECTION:** Method: bailer - bottom valve empty

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF32B	40 ml clear glass	3	HCl	VOCs by 8260B	1204	2-8-12

Comments: post-sampling: remove approx. 10 bailers silty water & surge with bailer to redevelop; DTW after removal 20.95

Signature: S Walston Date: 2-8-12

(T-post installed by well)

AECOM

PF-33B

Well/Piezo ID: ~~PF-33B~~

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: Cloudy, 30's, wind lt. North
Collector(s)
Date:
Time: Start _____ am/pm
Stop _____ am/pm

2-7-12 1700

WATER LEVEL DATA: (measured from Top of Casing)
a. Total Well Length 27.00
b. Water Table Depth 12.80
c. Casing Material PVC
d. Casing Diameter 1"
Well ☐ Piezometer ☒
e. Length of Water Column 14.2 (a-b)
f. Calculated Well Volume (gallons) 0.61
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA Development 2-7-12

a. Purge Method (peristaltic, bailer, pump, etc.) developed 2-7-12, removed 3 gals Heron WL meter "dipper-T"

2-8-12

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) 3 vol SOP
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters N/A % erratic tone 8'-16'

TD 26.6
DTW ? 16.1 ? 15.9
10.7 x 0.043 = 0.4601

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556 MPS	KC

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Purge-Bailer

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	~~DO %~~	~~DO (mg/l)~~	ORP (mV)	Color	Odor	Other
1300	0.5							Clear		fill flowcell
1305	1.0	13.61	7.76	5.360			43.2	clear	to brown/silty	
1307	1.5	13.63	7.68	2.805			44.5	slt-silty		
1310	2.0	13.55	7.58	5.406			47.1	clear		
1312	2.3	13.43	7.49	5.427			48.6	clear	going dry	
									Sample @ 1312	

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: bailer, bottom empty

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF 32B	40ml	3	HCl		1312	2-8-12

Comments post-sample - redevelop

Signature _____ Date _____

AECOM

Well/Piezo ID: PF-33B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No: 60240275
Site Location: Coffeyville, KS
Weather Conds: cloudy, 30's Collector(s): S. Walston
Date: _____
Time: Start _____ am/pm
Stop _____ am/pm

2-7-12 1700 **WATER LEVEL DATA: (measured from Top of Casing)**
a. Total Well Length 27.00 c. Casing Material PVC Well ☐ Piezometer ☒
b. Water Table Depth 12.80 d. Casing Diameter 1" e. Length of Water Column 14.2 (a-b)
f. Calculated Well Volume (gallons) 0.61
1" - 0.043 2" - 0.171 4" - 0.652

2-7-12 **WELL ~~PURGING DATA~~ DEVELOPMENT**
a. Purge Method (peristaltic, bailer, pump, etc.) 3 gals removed; agitate WC by reversing airflow and raise/lower tubing (Geotech peristaltic pump)
b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ _____ well volumes) _____
- Maximum Allowable Turbidity _____ NTUs
- Stabilization of parameters _____ %

c. Field Testing Equipment Used: Make / Model / Serial Number
water quality: YSI 556 MPS
water level meter: Heron 200' → WL tone erratic
d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

2-8-12 WELL PURGING (Bailer) TD 26.6 DTW 15.9 (?) WC 10.7 1 vol 0.46

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	~~DO %~~	~~DO (mg/l)~~	ORP (mV)	Color	Odor	Other
1300	0.5	—	—	—			—	clear	—	(GII flow cell)
1305	1.0	13.61	7.76	5.360			43.2	clear	no	
1307	1.5	13.63	7.68	2.805			44.5	slt. silty	no	
1310	2.0	13.55	7.55	5.406			47.1	clear	no	
1312	2.3	13.43	7.49	5.427			48.6	clear	no	going dry?

(mS/cm²)

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

2-8-12 **SAMPLE COLLECTION:** Method: bailer - bottom valve empty

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
PF 33B	40 ml	3	HCl	VOCs by 8260B	1312	2-8-12
	clear glass					

Comments: post-sampling: remove approx. 10 bailers silty water & surge with bailer to redevelop; DTW after removal - not measured, WL gauge malfunction; well not dry

Signature: S Walston Date: 2-8-12

(T-post installed by well)

AECOM

Well/Piezo ID: MW-11B

Ground Water Sample Collection Record

Client: CleanHarbors
Project No: 60240275-4200
Site Location: COFFEYVILLE
Weather Conds: CLEAR, 40°F Collector(s)

Date: 12/16/2011
Time: Start 0823 (am)/pm
Stop 0954 (am)/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 33.08'
b. Water Table Depth 15.63' toc
c. Casing Material PVC
d. Casing Diameter 4"
e. Length of Water Column 17.45 ft (a-b)
f. Calculated Well Volume (gallons) (17.45)(.652)=11.3 gallons 1 volume
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) DEDICATED POLY TUBING, WATERRA VALVE

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 33.9 gallons
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	650 MDS	GeoTech 26664

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # N/A Page #

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
0823	Initial	16.48	7.14	3.68	59.7	5.63	-21.5	clear/lt. brown,	no odor	
0842	5	16.97	6.98	3.87	53.2	4.77	-1.9	lt. brown		
0859	10	17.15	7.26	3.89	46.2	3.98	-15.7	clear, faint cloudy		
0911	15	16.07	6.93	3.97	21.1	2.00	8.1	slightly cloudy		
0920	20	17.17	6.90	3.89	26.0	2.34	14.1	slightly cloudy		
0935	25	16.51	6.84	4.179	20.1	1.96	2.7	slightly cloudy		
0947	30	15.10	6.86	3.725	30.2	3.07	0.2	slightly cloudy		
0954	34	16.10	6.84	4.001	26.5	2.51	6.8	slightly cloudy - SAMPLED 1000		

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Waterra direct to VOA

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-11B-20111216	VOA	3	None	8260 SIM	1000	12/16/11
MWD-20111216	VOA	3	None	8260 SIM (Duplicate)	1100	12/16/11
TripBlank-20111216	VOA	4	None	8260 SIM	N/A	N/A

Comments LAB=Accutest

Signature Jen Ashlin Date 12/16/2011

DUPLICATE = MWD-20111216
TIME = 1100

AECOM

Well/Piezo ID: MW-30B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH

Date: 01/13/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 23.06 c. Casing Material PVC e. Length of Water Column _____ (a-b)

b. Water Table Depth 16.77 d. Casing Diameter 2 f. Calculated Well Volume (gallons) _____
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check Valve / Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) _____
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1055		60.22	7.57	915	40.5	3.93	-10.3			
1100		60.05	7.50	915	39.3	3.91	-10.0			
1105		60.57	7.23	920	38.7	3.45	0.0			
1110		62.51	7.31	919	31.6	3.00	-3.6			

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check Valve / ~~bailer~~

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-30B-20120113		6	HCl None	1,4 Diox VOC	1115	01/13/12

Comments MW-30A 16.48 DTW

Signature _____ Date 01/13/12

AECOM

Well/Piezo ID: MW-39B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 25° Collector(s) DH

Date: 01/17/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 36.70
b. Water Table Depth 20.30
c. Casing Material PVC
d. Casing Diameter 2"

Well ☒ Piezometer ☐
e. Length of Water Column 16.4 (a-b)
f. Calculated Well Volume (gallons) 2.80
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check valve / Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 8.41
- Maximum Allowable Turbidity – NTUs
- Stabilization of parameters – %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1335	0	59.98	~~3.81~~	3071	46.6	4.68	49.2	brownish	–	–
1340	2.80	55.22	6.97	2930	38.5	3.79	48.6		–	–
1345	5.61	56.83	6.97	3090	34.2	3.48	47.2		–	–
1350	8.41	57.88	6.97	3040	34.5	3.43	47.5	↓	–	–

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-39B-20120117		6	HCl None	1,4 Dioxane VOC	1400	01/17/12

Comments

Signature _____ Date 01/17/12

AECOM

Well/Piezo ID: MW-38B

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Caffeyville
Weather Conds: 25° Collector(s) DH

Date: 01/17/11
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 35.80 c. Casing Material PVC e. Length of Water Column 18.0 (a-b)

b. Water Table Depth 17.80 d. Casing Diameter 2" f. Calculated Well Volume (gallons) 3.08
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check valve / Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 9.23
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1530	0	57.62	7.10	1653	23.6	2.42	20.7	brownish	-	-
1535	3.08	56.11	7.11	1603	22.7	2.48	19.4	↓	-	-
1540	6.16	56.02	7.11	1567	22.9	2.45	18.7		-	-
1545	9.23	55.98	7.09	1584	23.0	2.44	18.9	↓	-	-

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
MW-38B-20120117		6	HCl None	1,4 Diox VOCs	1550	01/17/12

Comments

Signature _____ Date 01/17/12

AECOM

Well/Piezo ID: SP-12

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 50° Collector(s) TH DH
Date: 01/10
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)
a. Total Well Length 29.67 / 71 c. Casing Material PVC
Well ☒ Piezometer ☐
e. Length of Water Column 14.04 (a-b)
b. Water Table Depth 15.67 d. Casing Diameter 2
f. Calculated Well Volume (gallons) 2.40
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA
a. Purge Method (peristaltic, bailer, pump, etc.) check valve / Bailer
b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 7.20
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1450	0	56.38	6.68	2520	8.6	.81	9.7	brownish	—	
1455		59.96	6.68	2618	8.9	.84	9.8	↓	—	
1500		61.55	6.55	2716	14.7	1.40	10.2		—	
1505			6.48	2801	12.3	1.21	9.3	↓	—	

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method:

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
SP-12-20120110		3	HCl	VOC	1510	01/10
SP-12-MS-20120110		3	HCl	VOC	1510	01/10
SP-12-MSD-20120110		3	HCl	VOC	1510	01/10

Comments: Silty bottom

Signature _____ Date 01/10/12

AECOM

Well/Piezo ID: SP-13

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 50° Collector(s) TH DH
Date: 01/10/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)
a. Total Well Length 32.24 c. Casing Material PVC
Well ☒ Piezometer ☐
e. Length of Water Column 15.54 (a-b)
b. Water Table Depth 16.70 d. Casing Diameter 2
f. Calculated Well Volume (gallons) 2.66
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA
a. Purge Method (peristaltic, bailer, pump, etc.) check Valve / Bailer
b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 7.97
- Maximum Allowable Turbidity – NTUs
- Stabilization of parameters – %

c. Field Testing Equipment Used: Make Model Serial Number
d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
	0	60.44	6.58	1912	23.3	2.24	111.3	yellowish	–	–
	2.66	60.44	6.16	1961	7.9	.77	83.4	↓	–	–
	5.31	60.77	6.24	1981	8.5	.83	80.2		–	–
	7.97	60.39	5.80	2006	12.2	1.17	75.5	↓	–	–

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check Valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
SP-13-TRIP	20ml O	3	HCl	VOCs	1600	01/10

Comments

Signature _____ Date 01/10/12

AECOM

Well/Piezo ID: SP-14

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 35° Collector(s) TH DH

Date: 01/10/12
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)

a. Total Well Length 31.95
b. Water Table Depth 16.44
c. Casing Material PVC
d. Casing Diameter 2

Well ☒ Piezometer ☐
e. Length of Water Column 15.51 (a-b)
f. Calculated Well Volume (gallons) 2.65
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA

a. Purge Method (peristaltic, bailer, pump, etc.) Check valve / Bailer

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 7.96
- Maximum Allowable Turbidity ___ NTUs
- Stabilization of parameters ___ %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1340	0	59.80	6.55	2307	16.1	1.59	48.0	dark	-	-
1345	2.65	59.33	6.55	2357	15.9	1.56	2.0	↓	-	-
1350	5.3	60.51	6.51	2993	15.7	1.53	-22.0		-	-
1355	8.0	60.52	6.51	3014	15.0	1.48	-27.9	↓	-	-

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check Valve Bailer

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
SP-14-20120110		3		VOC	1400	01/10

Comments

Signature _____ Date 01/10/12

AECOM

Well/Piezo ID: SP-15

Ground Water Sample Collection Record

Client: Clean Harbors
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH
Date: 01/10
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)
a. Total Well Length 16.51 c. Casing Material PVC
b. Water Table Depth 32.58 d. Casing Diameter 2"
Well ☒ Piezometer ☐
e. Length of Water Column 15.64 (a-b)
f. Calculated Well Volume (gallons) 2.67
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA
a. Purge Method (peristaltic, bailer, pump, etc.) _____
b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 8.02
- Maximum Allowable Turbidity -- NTUs
- Stabilization of parameters - %

c. Field Testing Equipment Used: Make Model Serial Number

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
1135	~~0~~	58.71	6.10	1339	36.5	3.68	109.3	clear	-	-
1140	2.67	57.55	6.17	1323	37.0	3.74	111.6	brownish	-	-
1145		59.23	6.18	4701	12.5	1.23	121.3		-	-
1150	8.02	59.67	6.20	4686	12.3	1.26	121.9	↓	-	-

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: _____

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
SP-15-20120110		3	HCl	VOC	1155	01/10/12
SP-15D-20120110		3	HCl	VOC	1255	01/10/12

Comments SP-15D is dup of SP-15

Signature _____ Date 01/10/12

AECOM

Well/Piezo ID: SP-16

Ground Water Sample Collection Record

Client: Clean Harbor
Project No:
Site Location: Coffeyville
Weather Conds: 30° Collector(s) TH DH
Date: 01/10
Time: Start _____ am/pm
Stop _____ am/pm

WATER LEVEL DATA: (measured from Top of Casing)
a. Total Well Length 34.95 c. Casing Material PVC
Well ☒ Piezometer ☐
e. Length of Water Column 18.5 (a-b)
b. Water Table Depth 16.45 d. Casing Diameter 2
f. Calculated Well Volume (gallons) 3.16
1" - 0.043 2" - 0.171 4" - 0.652

WELL PURGING DATA
a. Purge Method (peristaltic, bailer, pump, etc.) Check Valve / Bailer
b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ 3 well volumes) 9.44
- Maximum Allowable Turbidity — NTUs
- Stabilization of parameters — %
c. Field Testing Equipment Used: Make Model Serial Number
d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (mS/cm)	DO %	DO (mg/l)	ORP (mV)	Color	Odor	Other
	0	58.28	6.02	5182	12.0	1.18	115.4	brownish	-	-
		57.20	6.06	5178	11.6	1.18	115.9		-	-
		58.77	6.12	5355	11.7	1.15	116.1	↓	-	-
1100	9.44	59.20	6.11	5511	18.2	1.61	116.4	↓	-	-

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☐	☐	☒
Have parameters stabilized	☐	☐	☒

If no or N/A - Explain below.

MNA			
			Dilution
NO_3		mg/l	
Mn		mg/l	
SO_4		mg/l	
Fe		mg/l	

SAMPLE COLLECTION: Method: Check Valve

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time	Date
SP-16-20120110		6	HCl None	1,4 Diox VOCs	1105	01/10

Comments

Signature _____ Date 01/10/12

Table 4-3 Sampling Frequency and Analyses
Clean Harbors Coffeyville, LLC Facility
Coffeyville, Kansas

Sample Date	Sample Time	Well/Piezometer	Monitoring Frequency	Sampling Detail (Analysis and Method Number) VOCs 8260	Iron 6010	Chloride 300	Cations (Ca, Na, K, Mg) 6010	Alkalinity 310	DO/ORP Field
4/25	1215	MW-6B DUP-2	annual	X					X
4/24	1510	MW-7B	annual	X					X
4/23	1625	MW-8B	biannual	X					X
4/25	1330	MW-10B	biannual	X					X
4/25	0955	MW-11B DUP-1	annual	X					X
4/25	945	MW-12B DUP-3	annual	X					X
4/25	1405	MW-13B	biannual	X					X
4/24	1550	MW-20B	biannual	X					X
4/23	1605	MW-21B	biannual	X					X
4/25	1056	MW-24B	biannual	X					X
4/24	1630	MW-26B	biannual	X					X
4/22	1124	MW-28A	biannual	X					X
4/22	1105	MW-28B	annual	X					X
4/22	1615	MW-29A	biannual	X					X
4/22	1545	MW-29B	annual	X					X
4/23	1010	MW-30A	biannual	X					X
4/25	1045	MW-30B	annual	X					X
4/22	1154	MW-31A	biannual	X					X
4/22	1210	MW-31B	annual	X					X
4/22	1455	MW-32B	annual	X					X
4/22	1425	MW-33B	annual	X					X
4/22	1345	MW-34B	annual	X					X
4/22	1240	MW-35B	biannual	X					X
4/23	1450	MW-36B	annual	X					X
4/23	1320	MW-37B	annual	X					X
4/23	1235	Adams-A	annual	X					X
4/24	1230	PF-9A	biannual	X					X
4/24	0945	PF-9B	annual	X					X
4/24	1045	PF-13B	annual	X					X
4/24	1200	PF-14B	annual	X					X
4/26	1636	M-1	biannual	X	X	X	X	X	X
4/26	1400	M-2	annual	X	X	X	X	X	X
4/24	1355	M-3	biannual	X					X
4/24	1425	M-4	annual	X					X
4/27	1210	M-5	annual	X	X	X	X	X	X
4/27	1000	M-6	annual	X	X	X	X	X	X
4/26	1320	M-7	biannual	X	X	X	X	X	X
4/26	0930	M-8	annual	X	X	X	X	X	X
[redacted]									
4/26	1555	GW-2	annual	X	X	X	X	X	X
[redacted]									
4/26	1515	IW-1	annual	X	X	X	X	X	X
[redacted]									
4/26	1435	GW-5	annual	X	X	X	X	X	X
[redacted]									
4/27	1135	IW1-2	annual	X	X	X	X	X	X
[redacted]									
4/27	1105	IW1-5	annual	X	X	X	X	X	X
[redacted]									
4/26	1135	IW2-3	annual	X	X	X	X	X	X
[redacted]									
4/26	1050	IW2-7	biannual	X	X	X	X	X	X
[redacted]									
4/26	1000	IW2-10	annual	X	X	X	X	X	X
[redacted]									
4/23	1525	SP-16	annual	X					X

Notes:

Two monitoring events will be conducted during the first year of monitoring. All annual and biannual wells will be sampled during these events. Annual and biannual sampling will begin after the first year. Biannual sampling is conducted in years having ending in an odd number (i.e. 2009, 2011, etc.)

4/23 1145 Adams-BF (Between Filter) VOC
4/23 1135 Adams-AF (After Filter) VOC
4/25 1200 DUP-1 → VOC
4/25 1200 DUP-2 → VOC
4/25 1200 DUP-3 → VOC
4/25 0945 FB-1 → VOC

47 wells every other year.

CLEAN HARBORS COFFEYVILLE, LLC FACILITY
GROUNDWATER ELEVATION RECORD

Monitoring Personnel: John Talley & Kerri Berthelette

April 21, 2012

Well/Piezometer ID	Location	Date	Time	Depth to Groundwater, ft	Total Depth, ft	
MW-1B	Clean Harbors Facility		1655	13.40	32.60	
MW-3B	Clean Harbors Facility		1740	12.79	32.97	
MW-4B	Clean Harbors Facility		1220	12.80	33.92	
MW-5B	Clean Harbors Facility		1735	12.77	35.47	
MW-6B	Clean Harbors Facility		1745	13.50	34.38	
MW-7B	Clean Harbors Facility		1700	13.50	34.11	
MW-8B	Clean Harbors Facility		1215	12.68	32.03	
MW-9B	Clean Harbors Facility		1718	14.98	38.11	
MW-10B	Clean Harbors Facility		1732	15.40	34.15	
MW-11B	Clean Harbors Facility		1800	14.09	33.05	
MW-12B	Clean Harbors Facility		1750	12.60	32.63	
MW-13B	Clean Harbors Facility		1725	13.96	33.72	
MW-14B	Clean Harbors Facility		1721	14.78	36.57	
MW-18B	Clean Harbors Facility		1729	16.33	29.98	
MW-19B	Clean Harbors Facility		1714	17.42	34.06	
MW-20B	Clean Harbors Facility		1705	12.45	27.49	
MW-21B	Tract E		1225	12.60	27.45	
MW-22B	Tract E		1230	12.45	30.12	
MW-24B	Clean Harbors Facility		1710	14.26	32.00	
MW-25B	Clean Harbors Facility		1650	11.25	33.81	
MW-26B	Clean Harbors Facility		1708	12.25	26.83	
MW-28A	Tract D		1008	16.74	24.26	
MW-28B	Tract D		1010	16.61	35.96	
MW-29A	Adams Farm		0928	4.68	19.09	
MW-29B	Adams Farm		0930	3.62	28.31	
MW-31A	Tract D		1020	6.02	19.23	
MW-31B	Tract D		1023	5.50	28.96	
MW-32B	Tract E		1150	5.06	29.70	
MW-33B	Tract E		1155	4.17	28.12	
MW-34B	Tract E		0942	12.32	29.69	
MW-35B	Tract E		1000	8.88	32.89	
PE-2B	Tract E		1206	10.05	20.39	
PE-4B	Tract E		1210	11.00	18.00	PVC cut@top
PD-3B	Tract D		1043	13.53	21.63	
PD-7B2	Tract D		Destroyed			
GW-1	Tract F		1610	9.20	30.32	
GW-2	Tract F		1603	9.08	29.76	
GW-3	Tract F		1600	9.00	29.56	
M-5	Tract F		1640	11.20	32.64	
M-6	Tract F		1625	11.32	33.69	
IW-1	Tract F		1606	9.15	30.22	
GW-4	Tract F		1550	9.17	29.32	
GW-5	Tract F		1553	8.95	29.18	
GW-6	Tract F		1556	9.10	29.29	

CLEAN HARBORS COFFEYVILLE, LLC FACILITY
GROUNDWATER ELEVATION RECORD

Monitoring Personnel: John Talley & Henri Berthelette
April 21, 2012

Well/Piezometer ID	Location	Date	Time	Depth to Groundwater, ft	Total Depth, ft	
M-1	Tract F		1614	9.20	28.72	
M-2	Tract F		1545	9.12	27.80	
IW1-2	Tract F		1634	10.10	34.34	
IW1-5	Tract F		1630	11.54	34.19	
M-3	Tract F		1518	12.86	29.79	
M-4	Tract F		1648	11.84	30.49	
SP-2	Tract F		1645	11.27	31.31	
SP-4	Tract F		1638	10.45	30.99	
SP-5	Tract F		1620	5.18	5.18 Dry	
SP-6	Tract F		1540	10.37	29.75	
SP-9	Tract F		1530	11.56	31.30	
SP-10	Tract F		1628	11.15	32.75	
SP-11	Tract F		1535	11.19	32.08	
SP-12	Tract F		1510	13.26	29.80	
SP-13	Tract F		1505	14.52	32.20	tiedge broken
SP-14	Tract F		1430	14.39	31.92	
IW2-3	Tract F		1440	obstruction @ 6.60'		
IW2-7	Tract F		1445	15.02	35.23	
IW2-10	Tract F		1450	11.79	34.67	
SP-15	Tract F		1325	14.69	32.54	
SP-16	Tract F		1320	14.68	34.75	
PF-9A	Tract F		1335	15.40	24.79	
PF-9B	Tract F		1340	14.95	34.30	
M-7	Tract F		1455	14.86	34.49	
M-8	Tract F		1436	14.98	34.95	
PF-6B	American Wire		1135	15.59	31.58	
PF-14B	American Wire		1415	15.11	24.06	
PF-13B	American Wire		1345	12.64	26.43	
MW-36B	King Farm		0915	19.62	35.23	Broken lock latch
MW-37B	King Farm		0900	14.91	31.97	
PF-16B	King Farm	- CANT. FIND				
MW-30A	American Wire		1115	14.46	32.25	
MW-30B	American Wire		1110	14.71	22.65	
Adams-A	Adams Farm		1100	10.75	25.30	

SP-5 → apparently reconditioned (has new concrete pad & plug). Seems to be dry at 5.18' now (hits obstruction or new bottom?).

* All wells need to be repainted.

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-5

Sampler(s) John Talley & Kerri Berthelette	Date: 4-27-12
Well Condition: good - needs paint	Weather: 75°F overcast windy

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 21.16
Total Depth: 32.64	Well Diameter: 2"
Depth to Water: 11.48	Purge Volume: 2.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1145 — Total Volume Purged: 2.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1150	1.751	6.73	16.21	43.9	0.41	clear
1.0	1155	1.783	6.79	16.27	76.6	0.39	clear
1.5	1200	1.797	6.80	16.38	144.7	0.41	clear
2.0	1205	1.804	6.80	16.54	151.8	0.42	clear
2.5	1210	1.805	6.78	16.42	154.4	0.42	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1210 — Laboratory: Test America

Shipped by: FT/NB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	✓	Comments
VOCs	8260	3x40ml VOAs	HCl	✓	
Iron	6010	500ml plastic	HNO_3	✓	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	✓	
Chloride	300	500ml plastic	None	✓	
Alkalinity	310	500ml plastic	None	✓	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID IW1-2

Sampler(s) John Talley & Kerri Berthelette	Date: 4/27/11
Well Condition: good. needs paint.	Weather: 75° F overcast windy

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 22.79
Total Depth: 34.34	Well Diameter: 4"
Depth to Water: 11.55	Purge Volume: 2.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1115 — Total Volume Purged: 2.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1120	0.612	7.56	16.90	-74.1	0.85	clear
1.0	1125	0.611	7.35	16.76	-51.2	0.66	clear
1.5	1130	0.606	7.33	16.73	-43.7	0.63	clear
2.0	1135	0.605	7.32	16.72	-42.4	0.65	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1135 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3 ✓	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3 ✓	
Chloride	300	500ml plastic	None ✓	
Alkalinity	310	500ml plastic	None ✓	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID FW1-5

Sampler(s): John Talley & Kerri Berthelette	Date: 4-27-12
Well Condition: good. needs paint.	Weather: 70°F overcast windy

GENERAL INFORMATION

Purge Pump Method: Peristaltic (Waterra for VOCs)	Water Column: 22.44
Total Depth: 34.19	Well Diameter: 4"
Depth to Water: 11.75	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1050 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1055	0.653	9.86	16.52	-332.4	0.21	clear/black particles
1.0	1100	0.646	9.92	16.37	-345.9	0.18	clear
1.5	1105	0.644	9.96	16.36	-355.7	0.18	clear

SAMPLE COLLECTION AND ANEYTICAL INFORMATION

Sample Collection Time: 1105 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl	✓
Iron	6010	500ml plastic	HNO_3	✓
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	✓
Chloride	300	500ml plastic	None	✓
Alkalinity	310	500ml plastic	None	✓

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-6

Sampler(s) John Talley & Kerri Berthelette	Date: 4-27-12
Well Condition: good. needs paint.	Weather: 70°F overcast windy.

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 22.18
Total Depth: 33.69	Well Diameter: 2"
Depth to Water: 11.51	Purge Volume: 2.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 0935 — Total Volume Purged: 2.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	0940	1.809	6.68	16.59	103.9	1.22	cloudy
1.0	0945	1.803	6.72	16.84	146.8	1.29	cloudy
1.5	0950	1.817	6.72	16.76	218.3	0.77	cloudy
2.0	0955	1.809	6.70	16.05	256.6	0.62	cloudy
2.5	1000	1.808	6.73	16.14	277.9	0.58	cloudy

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1000 — Laboratory: Test America

Shipped by: JT | KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3 ✓	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3 ✓	
Chloride	300	500ml plastic	None ✓	
Alkalinity	310	500ml plastic	None ✓	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-1

Sampler(s): John Talley & Kerri Berthelette	Date: 4-26-12
Well Condition: good. needs paint.	Weather: 80°F overcast light wind

GENERAL INFORMATION

Purge Pump Method: Peristaltic (Waterra for VOCs)	Water Column: 19.2
Total Depth: 28.72	Well Diameter: 4"
Depth to Water: 9.52	Purge Volume: 2.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1610

Total Volume Purged: 2.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1615	1.760	6.18	16.04	236.9	0.99	cloudy
1.0	1620	1.666	6.24	16.08	264.6	0.97	cloudy
1.5	1625	1.647	6.29	16.31	318.9	0.97	cloudy
2.0	1630	1.646	6.29	16.34	327.0	0.97	cloudy
2.5	1635	1.647	6.29	16.37	329.9	0.97	cloudy

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1635

Laboratory: Test America

Shipped by: JT/KB

COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl	✓
Iron	6010	500ml plastic	HNO_3	✓
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	✓
Chloride	300	500ml plastic	None	✓
Alkalinity	310	500ml plastic	None	✓

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID GW-2

Sampler(s) John Talley & Kerri Berthelette	Date: 4-26-12
Well Condition: good. needs paint.	Weather: 80°F overcast light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 20.36
Total Depth: 29.76	Well Diameter: 4
Depth to Water: 9.40	Purge Volume: 2.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1535 — Total Volume Purged: 2.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1540	2.290	6.64	16.61	-82.1	0.54	cloudy
1.0	1545	2.314	6.48	16.27	-73.4	0.50	cloudy
1.5	1550	2.321	6.44	16.59	-73.4	0.52	cloudy
2.0	1555	2.320	6.42	16.64	-71.7	0.53	cloudy

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1555 — Laboratory: Test America

Shipped by: JT / KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3 ✓	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3 ✓	
Chloride	300	500ml plastic	None ✓	
Alkalinity	310	500ml plastic	None ✓	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID TW-1

Sampler(s): John Talley & Kerri Berthelette	Date: 4-26-12
Well Condition: good. needs paint.	Weather: 80°F overcast light wind.

GENERAL INFORMATION

Purge Pump Method: Peristaltic (Waterra for VOCs)	Water Column: 20.78
Total Depth: 30.22	Well Diameter: 4"
Depth to Water: 9.44	Purge Volume: 2.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1455 — Total Volume Purged: 2.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1500	1.272	10.22	16.21	69.9	0.33	clear
1.0	1505	1.282	10.34	16.32	110.8	0.35	clear
1.5	1510	1.281	10.37	16.48	116.9	0.31	clear
2.0	1515	1.280	10.33	16.67	120.4	0.34	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1515 — Laboratory: Test America

Shipped by: JT / KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID GW-5

Sampler(s) John Talley & Kerri Berthelette	Date: 4-26-12
Well Condition: good. needs paint.	Weather: 80°F overcast light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 19.93
Total Depth: 29.18	Well Diameter: 4"
Depth to Water: 9.25	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1420 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1425	1.290	8.61	16.80	-47.5	0.41	Cloudy/Black
1.0	1430	1.287	8.72	16.87	-39.0	0.39	Clear
1.5	1435	1.286	9.03	16.99	-52.1	0.35	Clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1435 — Laboratory: Test America

Shipped by: JT IKB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	✓	Comments
VOCs	8260	3x40ml VOAs	HCl	✓	
Iron	6010	500ml plastic	HNO_3	✓	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	✓	
Chloride	300	500ml plastic	None	✓	
Alkalinity	310	500ml plastic	None	✓	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-2

Sampler(s) John Talley & Kerri Berthelette	Date: 4-26-12
Well Condition: good. needs paint.	Weather: 80°F ~~Sunny~~ Overcast light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: ~~18.53~~ 18.31
Total Depth: 27.80	Well Diameter: 2"
Depth to Water: ~~9.53~~ 9.49	Purge Volume: 2.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1335 — Total Volume Purged: 2.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1340	1.141	6.44	16.31	303.9	1.20	cloudy/brown
1.0	1345	1.362	6.52	16.31	382.9	0.86	cloudy
1.5	1350	1.505	6.51	16.36	404.9	0.79	cloudy
2.0	1355	1.574	6.54	16.39	417.4	0.76	cloudy
2.5	1400	1.618	6.51	16.40	438.5	0.75	cloudy
	~~1405~~						

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1400 — Laboratory: Test America

Shipped by: FT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl	✓
Iron	6010	500ml plastic	HNO_3	✓
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	✓
Chloride	300	500ml plastic	None	✓
Alkalinity	310	500ml plastic	None	✓

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-7

Sampler(s): John Talley & Kerri Berthelette	Date: 4-26-12
Well Condition: good. needs paint.	Weather: 80°F overcast light wind

GENERAL INFORMATION

Purge Pump Method: Peristaltic (Waterra for VOCs)	Water Column: 19.43
Total Depth: 34.49	Well Diameter: 2"
Depth to Water: 15.06	Purge Volume: 2.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1200 — Total Volume Purged: 2.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1205	4.501	6.23	16.24	252.7	0.74	Cloudy
1.0	1210	4.520	6.19	16.67	213.5	0.80	cloudy
1.5	1215	4.505	6.18	16.85	210.0	0.83	cloudy
2.0	1220	4.511	6.17	16.75	196.1	0.83	cloudy

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1220 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3 ✓	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3 ✓	
Chloride	300	500ml plastic	None ✓	
Alkalinity	310	500ml plastic	None ✓	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID IW2-5

Sampler(s) John Talley & Kerri Berthelette	Date: 4-26-12
Well Condition:	Weather: 80°F sunny/cloudy light wind.

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 20.00
Total Depth: 35.17	Well Diameter: 4"
Depth to Water: 15.17	Purge Volume: 2.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1115 — Total Volume Purged: 2.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1120	1.870	9.02	16.39	79.9	0.69	cloudy/black particles.
1.0	1125	1.861	9.17	16.64	178.8	0.54	cloudy
1.5	1130	1.862	9.20	16.61	192.8	0.49	cloudy
2.0	1135	1.857	9.24	16.64	190.4	0.40	Cloudy

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1130 — Laboratory: Test America

Shipped by: JT | KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl	✓
Iron	6010	500ml plastic	HNO_3	✓
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	✓
Chloride	300	500ml plastic	None	✓
Alkalinity	310	500ml plastic	None	✓

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW2-7

Sampler(s): John Talley & Kerri Berthelette	Date: 4-26-12
Well Condition: Outer casing Settlig, Lid won't close	Weather: 80°F Sunny

GENERAL INFORMATION

Purge Pump Method: Peristaltic (Waterra for VOCs)	Water Column: 19.96
Total Depth: 35.23	Well Diameter: 4"
Depth to Water: 15.27	Purge Volume: 2.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1030

Total Volume Purged: 2.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1035	1.719	9.72	17.22	-286.0	0.47	clear
1.0	1040	1.723	9.82	17.27	-279.4	0.36	clear
1.5	1045	1.701	9.85	17.17	-284.2	0.33	clear
2.0	1050	1.739	9.85	17.12	-281.0	0.32	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1050

Laboratory: Test America

Shipped by: JT / KB

COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3 ✓	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3 ✓	
Chloride	300	500ml plastic	None ✓	
Alkalinity	310	500ml plastic	None ✓	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID IW2-10

Sampler(s) John Talley & Kerri Berthelette	Date: 4-26-13
Well Condition: needs paint. doesn't close - outer casing is settling lid won't close	Weather: 76° F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 21.84
Total Depth: 34.67	Well Diameter: 4"
Depth to Water: 12.83	Purge Volume: 2.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 0940 — Total Volume Purged: 2.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	0945	0.989	6.64	16.30	~~888.64~~	0.71	cloudy/black
1.0	0950	0.982	6.76	16.29	-92.4	0.65	cloudy
1.5	0955	0.981	6.79	16.26	-90.8	0.63	cloudy
2.0	1000	0.980	6.85	16.35	-90.9	0.61	cloudy

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1000 — Laboratory: Test America

Shipped by: JT / KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3 ✓	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3 ✓	
Chloride	300	500ml plastic	None ✓	
Alkalinity	310	500ml plastic	None ✓	

COMMENTS

Sulfurous odor.

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-8

Sampler(s) John Talley & Kerri Berthelette	Date: 4-26-12
Well Condition: good. needs paint	Weather: 70°F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 19.85
Total Depth: 34.95	Well Diameter: 2"
Depth to Water: 15.10	Purge Volume: 3.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 0900 — Total Volume Purged: 3.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	0905	4.342	6.30	16.14	236.9	1.58	cloudy
1.0	0910	4.339	6.40	16.55	252.2	2.84	cloudy/clearing
1.5	0915	4.366	6.30	17.02	283.7	1.30	clear
2.0	0920	4.369	6.22	16.99	367.8	1.36	clear
2.5	0925	4.369	6.18	16.90	378.4	1.37	clear
3.0	0930	4.364	6.16	16.86	392.6	1.38	clear

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 0930 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3 ✓	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3 ✓	
Chloride	300	500ml plastic	None ✓	
Alkalinity	310	500ml plastic	None ✓	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-13B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-25-12
Well Condition: good	Weather: 80° F Sunny light wind.

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 19.81
Total Depth: 33.72	Well Diameter: 4"
Depth to Water: 13.91	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1350 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1355	4.964	5.80	21.40	482.8	1.04	clear
1.0	1400	4.988	5.86	21.59	482.7	1.07	clear
1.5	1405	5.012	5.88	21.65	482.8	1.07	clear

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1405 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-10B

Sampler(s) John Talley & Kerri Berthelotte	Date: 4-25-12
Well Condition: good. needs paint.	Weather: 80°F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 18.78
Total Depth: 34.15	Well Diameter: 4"
Depth to Water: 15.37	Purge Volume: 2.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1310 — Total Volume Purged: 2.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1315	0.653	6.56	16.86	407.6	2.48	clear
1.0	1320	0.706	6.05	16.74	480.9	1.66	clear
1.5	1325	0.732	6.09	16.78	501.8	1.29	clear
2.0	1330	0.740	6.14	16.75	506.4	1.10	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1330 — Laboratory: Test America

Shipped by: JT KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	✓	Comments
VOCs	8260	3x40ml VOAs	HCl	✓	
Iron	6010	500ml plastic	HNO_3		
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3		
Chloride	300	500ml plastic	None		
Alkalinity	310	500ml plastic	None		

COMMENTS

DUP-3 collected @ 1200.

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-12B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-25-12
Well Condition: good -	Weather: 80° F Sunny Light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 20.05
Total Depth: 32.63	Well Diameter: 4"
Depth to Water: 12.58	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1230 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1235	3.412	5.52	19.42	459.9	1.22	clear
1.0	1240	3.359	5.49	19.43	502.8	1.06	clear
1.5	1245	3.360	5.51	19.44	487.1	1.06	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1245 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

DUP-2 collected @ 1200

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-6B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-25-12
Well Condition: good - needs paint	Weather: 80° & Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 20.95
Total Depth: 34.38	Well Diameter: 4"
Depth to Water: 13.43	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1200 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1205	5.326	5.38	19.31	490.0	1.04	clear
1.0	1210	5.346	5.54	19.19	496.1	1.02	clear
1.5	1215	5.367	5.69	19.04	482.3	1.02	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1215 — Laboratory: Test America

Shipped by: JT HB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-24B

Sampler(s) John Talley & Kersi Bertholette	Date: 4-25-12
Well Condition: good. needs paint	Weather: 75°F Sunny light wind.

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 17.68
Total Depth: 32.00	Well Diameter: 2"
Depth to Water: 14.32	Purge Volume: 2.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1025 — Total Volume Purged: 2.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1030	3.534	6.67	18.66	475.7	4.49	clear
1.0	1035	4.648	6.24	18.89	544.9	2.19	clear
1.5	1040	4.913	6.19	19.15	548.8	1.77	clear
2.0	1045	5.199	6.19	19.28	540.4	1.33	clear
2.5	1050	5.207	6.21	19.36	530.0	1.27	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1050 — Laboratory: Test America

Shipped by: JT / KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

DUP-1 collected @ 1200

FB-1 collected @ 1045

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-11B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-25-12
Well Condition: PVC pipe casing uncoupled ≈ 3' from top.	Weather: 73°F Sunny light wind.

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 19.00
Total Depth: 33.05	Well Diameter: 4"
Depth to Water: 14.05	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 0940 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	0945	3.662	6.47	19.02	294.4	0.85	clear
1.0	0950	3.676	6.54	19.16	311.2	0.94	clear
1.5	0955	3.677	6.54	19.14	323.5	0.95	clear

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 0955 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-26B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-24-12
Well Condition: good - needs paint.	Weather: 80° F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 14.59
Total Depth: 26.86	Well Diameter: 2"
Depth to Water: 12.27	Purge Volume: 2.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1610 — Total Volume Purged: 2.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1615	2.024	8.58	17.69	423.1	6.01	clear
1.0	1620	2.373	6.65	17.01	491.9	3.97	clear
1.5	1625	2.422	6.28	17.10	522.6	2.72	clear
2.0	1630	2.458	6.05	17.05	543.6	2.13	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1630 — Laboratory: Test America

Shipped by: JT | KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-20B

Sampler(s) John Talley & Kerri Besthelette	Date: 4-24-12
Well Condition: good. needs paint.	Weather: 80° F Sunny light wind.

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 14.91
Total Depth: 27.49	Well Diameter: 8"
Depth to Water: 12.58	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1535

Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1540	4.438	6.52	17.89	28.7	2.08	clear
1.0	1545	4.603	6.40	17.86	118.7	1.34	clear
1.5	1550	4.637	6.43	17.89	183.7	0.91	clear

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1550

Laboratory: Test America

Shipped by: FT / KB

COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-7B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-24-12
Well Condition: good. needs paint.	Weather: 80°F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 20.61
Total Depth: 34.11	Well Diameter: 4"
Depth to Water: 13.50	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1455 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1500	2.391	6.07	20.22	49.6	0.75	clear
1.0	1505	2.489	6.34	20.41	19.7	0.64	clear
1.5	1510	2.518	6.32	20.49	18.3	0.66	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1510 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-4

Sampler(s) John Talley & Kerri Berthelette	Date: 4-24-12
Well Condition: good. needs paint.	Weather: 80°F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 18.59
Total Depth: 30.49	Well Diameter: 2"
Depth to Water: 11.90	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1410

Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1415	1.947	7.24	18.32	264.8	1.07	cloudy
1.0	1420	2.054	6.89	18.64	349.8	0.63	cloudy
1.5	1425	2.006	6.78	18.92	408.9	0.58	cloudy

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1425

Laboratory: Test America

Shipped by: UT/FB

COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl	✓
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-3

Sampler(s) John Talley & Kerri Berthelette	Date: 4-24-12
Well Condition: good. needs paint.	Weather: 77° F Sunny light wind.

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 16.87
Total Depth: 29.79	Well Diameter: 2"
Depth to Water: 12.92	Purge Volume: 2.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1330 — Total Volume Purged: 2.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1335	1.469	6.24	17.37	-14.8	0.47	Cloudy / black
1.0	1340	1.929	6.45	18.23	-31.6	0.52	cloudy / black
1.5	1345	2.242	6.48	18.30	-25.1	0.55	cloudy
2.0	1350	2.344	6.50	18.35	-12.1	0.57	cloudy
2.5	1355	2.367	6.51	18.52	-7.5	0.57	cloudy

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1355 — Laboratory: Test America

Shipped by: JT / KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID PF-14B

Sampler(s): John Talley & Kerri Berthelette	Date: 4-24-12
Well Condition: good. needs exterior marking.	Weather: 72°F Sunny light wind

GENERAL INFORMATION

Purge Pump Method: Peristaltic (Waterra for VOCs)	Water Column: 9.66
Total Depth: 24.06	Well Diameter: 1"
Depth to Water: 14.40	Purge Volume: 0.3
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1120 — Total Volume Purged: 0.3

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1128	3.466	6.81	16.20	-56.6	0.97	clear
Dry @ 0.5 gal							

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1200 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Dry @ 0.5 gal. Left to recharge then sampled

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID PF-13B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-24-12
Well Condition: good	Weather: 63° F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 13.8
Total Depth: 26.43	Well Diameter: 1"
Depth to Water: 12.63	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1035 — Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1038	4.439	6.49	15.14	147.3	1.28	cloudy/brown
0.6	1041	4.441	6.56	15.06	193.7	0.95	cloudy
0.9	1044	4.441	6.59	15.11	211.7	0.90	cloudy

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1045 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s) & #	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID PF-9A

Sampler(s) John Talley & Kerri Berthelette	Date: 4-24-12
Well Condition: good.	Weather: 63°F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 10.09
Total Depth: 24.79	Well Diameter: 1"
Depth to Water: 14.70	Purge Volume: 0.3
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1005 — Total Volume Purged: 0.3

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1010	4.211	6.47	16.04	21.1	2.08	Clear
Dry @ 0.5 gal.							

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1230 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	✓	Comments
VOCs	8260	3x40ml VOAs	HCl	✓	
Iron	6010	500ml plastic	HNO_3		
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3		
Chloride	300	500ml plastic	None		
Alkalinity	310	500ml plastic	None		

COMMENTS

Dry @ 0.5 gal. Allowed to recharge then sampled.

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID PF-9B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-24-12
Well Condition: good needs paint.	Weather: 60° F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 19.40
Total Depth: 34.30	Well Diameter: 2"
Depth to Water: 14.90	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 0935 Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	0938	4.372	6.26	15.93	314.8	1.40	cloudy
0.6	0941	4.357	6.41	16.12	314.7	0.90	cloudy
0.9	0944	4.347	6.43	16.16	417.4	0.79	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 0945 Laboratory: Test America

Shipped by: JT IKB COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-8B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-23-12
Well Condition: good, needs paint.	Weather: 68°F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 19.21
Total Depth: 32.03	Well Diameter: 4"
Depth to Water: 12.82	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1620 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1625	1.638	6.88	16.05	-14.0	1.40	clear
1.0	1630	1.814	6.95	16.18	-2.8	0.84	clear
1.5	1635	1.858	6.94	16.15	1.6	0.80	clear

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1635 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-21B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-23-12
Well Condition: good. needs paint.	Weather: 67°F Sunny light wind.

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 14.75
Total Depth: 27.45	Well Diameter: 4"
Depth to Water: 12.70	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1550 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1555	1.946	6.82	16.23	-87.9	0.64	clear
1.0	1600	2.001	6.85	16.41	-83.7	0.47	clear
1.5	1605	2.048	6.84	16.35	-73.0	0.47	clear

SAMPLE COLLECTION AND ANEYTICAL INFORMATION

Sample Collection Time: 1605 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID SP-16

Sampler(s) John Talley & Kerri Berthelette	Date: 4-23-12
Well Condition: good - needs paint.	Weather: 68°F sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 19.96
Total Depth: 34.75	Well Diameter: 2"
Depth to Water: 14.79	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1505 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1515	6.890	6.53	16.13	481.0	0.72	Cloudy/brown
1.0	1520	6.881	6.60	16.30	480.2	0.73	Cloudy
1.5	1525	6.882	6.59	16.27	481.8	0.75	Cloudy

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1525 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl	✓
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-36B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-23-12
Well Condition: good. needs paint.	Weather: 65° F Sunny

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 15.55
Total Depth: 35.23	Well Diameter: 2"
Depth to Water: 19.68	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1435

Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1440	5.147	6.48	17.52	339.8	0.97	cloudy
1.0	1445	5.116	6.53	17.01	366.8	0.69	clear
1.5	1450	5.105	6.59	16.98	387.9	0.61	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1450

Laboratory: Test America

Shipped by: JT/ICB

COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-37B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-23-12
Well Condition: good - needs paint	Weather: 65°F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 11.98
Total Depth: 31.97	Well Diameter: 2"
Depth to Water: 19.99	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1305 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1310	5.207	6.71	16.76	287.2	0.91	cloudy/orange
1.0	1315	5.215	6.71	16.70	308.7	0.87	cloudy
1.5	1320	5.222	6.71	16.69	333.3	0.76	cloudy

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1320 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID Adams-A

Sampler(s) John Talley & Kerri Berthelette	Date: 4-23-12
Well Condition: good.	Weather: 60°F Sunny light wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: —
Total Depth: 25.30	Well Diameter: —
Depth to Water: 10.75	Purge Volume: 1.0
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1115 — Total Volume Purged: 1.0

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
~~1.25~~ 1.0	1125	2.469	6.86	14.89	406.7	1.68	Clear

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1135 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Adams-BF (Between filter) @ 1145

Adams-AF (After filter) @ 1135

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-30B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-23-12
Well Condition: good. needs paint & marking	Weather: 60°F Sunny Slight wind

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 8.04
Total Depth: 22.65	Well Diameter: 2"
Depth to Water: 14.61	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1035 — Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1038	1.141	6.99	16.85	221.7	2.18	Cloudy/orange
0.6	1041	1.144	7.00	16.82	282.6	1.90	cloudy
0.9	1044	1.164	6.99	16.80	311.9	1.86	cloudy

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1045 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-30A

Sampler(s) John Talley & Kerri Berthelette	Date: 4-23-12
Well Condition: needs paint & exterior marking.	Weather: 56°F Sunny slight wind.

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 17.89
Total Depth: 32.25	Well Diameter: 2"
Depth to Water: 14.36	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1000 — Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1003	2.487	6.73	17.16	88.6	1.50	cloudy
0.6	1006	2.560	6.73	17.11	88.9	1.07	cloudy
0.9	1009	2.606	6.75	17.14	69.1	0.95	cloudy

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1010 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-34B

Sampler(s) John Talley & Henri Berthelette	Date: 4-22-12
Well Condition: good. needs paint	Weather: 60°F Sunny windy ≈ 20 mph

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 17.37
Total Depth: 29.69	Well Diameter: 2"
Depth to Water: 12.32	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1335 — Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1338	2.467	6.87	15.61	122.7	0.84	orange
0.6	1341	2.489	6.80	15.57	197.9	0.83	clear
0.9	1344	2.494	6.78	15.60	244.9	0.82	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1345 — Laboratory: Test America

Shipped by: JT / HB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-33B

Sampler(s) John Talley & Henri Berthelette	Date: 4-22-12
Well Condition: good. needs paint.	Weather: 65° F Sunny Windy ≈ 20mph

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 16.95
Total Depth: 28.12	Well Diameter: 2"
Depth to Water: 11.17	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1415 — Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1418	2.088	6.85	16.08	171.0	7.81	Cloudy
0.6	1421	2.087	6.84	16.15	276.9	7.31	clearing
0.9	1424	2.086	6.84	16.17	280.7	6.84	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1425 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-32B

Sampler(s) John Talley & Henri Berthelette	Date: 4-22-12
Well Condition: good - needs paint	Weather: 64° F Sunny windy ≈ 20mph

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 24.64
Total Depth: 29.70	Well Diameter: 2"
Depth to Water: 5.06	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1445 — Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1448	2.250	6.89	16.28	308.2	0.73	clear
0.6	1451	2.227	6.89	16.22	324.5	1.12	clear
0.9	1455	2.225	6.87	16.25	333.8	1.07	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1455 — Laboratory: Test America

Shipped by: JT/MB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-29B

Sampler(s) John Talley & Kerri Berthelette	Date: 4-22-12
Well Condition: good. needs paint & exterior marking.	Weather: 64°F Sunny Windy ≈ 20mph

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 24.69
Total Depth: 28.31	Well Diameter: 2"
Depth to Water: 3.62	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1530 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1535	2.211	6.89	15.16	-36.5	0.40	orange / cloudy
1.0	1540	2.207	6.91	15.22	-40.8	0.35	clear
1.5	1545	2.206	6.91	15.33	-43.0	0.34	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1545 — Laboratory: Test America

Shipped by: JT / KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-29A

Sampler(s) John Talley & Kerri Berthelette	Date: 4-22-12
Well Condition: good. needs paint & exterior marking.	Weather: 64°F Sunny Windy ≈ 20 mph

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 14.41
Total Depth: 19.09	Well Diameter: 2
Depth to Water: 4.68	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1600 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1605	2.090	6.90	14.44	75.9	1.32	cloudy / brown
1.0 KB	1610	2.108	6.89	14.42	126.9	0.81	cloudy
1.5	1615	2.110	6.89	14.42	148.4	0.67	cloudy

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1615 — Laboratory: Test America

Shipped by: JT / KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-28B

Sampler(s) John Talley & Henri Berthelette	Date: 4-22-12
Well Condition: needs paint & exterior marking.	Weather: 60°F Sunny Windy ≈ 25 mph

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 19.35
Total Depth: 35.96	Well Diameter: 2"
Depth to Water: 16.61	Purge Volume: 1.5
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1050 — Total Volume Purged: 1.5

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.5	1055	0.797	6.84	15.32	-55.2	0.64	orange
1.0	1100	0.793	6.90	15.38	-55.3	0.57	cloudy
1.5	1105	0.801	6.94	15.38	-55.6	0.52	cloudy

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1105 — Laboratory: Test America

Shipped by: JT IKB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-28A

Sampler(s) John Talley & Henri Berthelette	Date: 4-22-12
Well Condition: good, needs paint & exterior marking	Weather: 60° F Sunny Windy ≈ 25 mph

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 7.52
Total Depth: 24.26	Well Diameter: 2
Depth to Water: 16.74	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1115 — Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1118	2.149	6.66	14.63	34.4	0.88	clear
0.6	1121	2.156	6.666	14.61	47.6	0.64	clear
0.9	1124	2.155	6.67	14.66	25.0	0.59	clear

SAMPLE COLLECTION AND ANEYTICAL INFORMATION

Sample Collection Time: 1124 — Laboratory: Test America

Shipped by: FT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-31A

Sampler(s) John Talley & Henri Berthelette	Date: 4-22-12
Well Condition: good, needs paint & exterior markings	Weather: 60°F Sunny Windy ≈ 25mph

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 13.21
Total Depth: 19.23	Well Diameter: 2"
Depth to Water: 6.02	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1145 — Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1148	1.710	7.00	13.36	26.6	1.00	cloudy
0.6	1151	1.694	6.96	13.16	32.2	0.68	cloudy
0.9	1154	1.675	6.96	13.11	48.0	0.44	cloudy/clearing

SAMPLE COLLECTION AND ANALYTICAL INFORMATION

Sample Collection Time: 1154 — Laboratory: Test America

Shipped by: JT IKB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-35B

Sampler(s) John Talley & Henri Berthelette	Date: 4-22-12
Well Condition: needs paint & proper external marking. good otherwise	Weather: 60° F Sunny windy ≈ 25mph

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 24.01
Total Depth: 32.89	Well Diameter: 2"
Depth to Water: 8.88	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1230 — Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1233	2.073	6.94	15.22	79.2	0.57	clear
0.6	1237	2.074	6.92	15.34	93.7	0.44	clear
0.9	1240	2.072	6.89	15.54	104.7	0.42	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1240 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

Clean Harbors Coffeyville, LLC Facility
Groundwater Sampling Form
WELL ID MW-31B

Sampler(s) John Talley & Henri Berthelette	Date: 4-22-12
Well Condition: good. needs paint & exterior markings	Weather: 60°F Sunny Windy ≈ 25mph

GENERAL INFORMATION

Purge Pump Method Peristaltic (Waterra for VOCs)	Water Column: 23.46
Total Depth: 28.96	Well Diameter: 2"
Depth to Water: 5.50	Purge Volume: 0.9
Depth to Product: NA	

LOW FLOW MEASUREMENTS AND FIELD PARAMETERS

Start Purge Time: 1200 — Total Volume Purged: 0.9

Volume Purged (Gallons)	Time (min)	Conductivity (mS)	pH (SU)	Temp. (Celcius)	ORP (mV)	DO (mg/L)	Appearance
0.3	1203	1.863	6.95	13.93	83.0	1.48	clear
0.6	1206	1.863	6.96	13.99	84.8	1.21	clear
0.9	1209	1.864	6.96	14.01	83.0	1.19	clear

SAMPLE COLLECTION AND ANLYTICAL INFORMATION

Sample Collection Time: 1210 — Laboratory: Test America

Shipped by: JT/KB — COC Seal? (yes) / no

Analysis	Method	Container(s)	Preservative	Comments
VOCs	8260	3x40ml VOAs	HCl ✓	
Iron	6010	500ml plastic	HNO_3	
Cations (Ca, Na, K, Mg)	6010	500ml plastic	HNO_3	
Chloride	300	500ml plastic	None	
Alkalinity	310	500ml plastic	None	

COMMENTS

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Talley / M. Bechtelle	Lab PM: Egry, Joseph J	Carrier Tracking No(s):	COC No: 280-16244-7589.1
Client Contact: Mr. John Talley	Phone: 701-347-3766	E-Mail: joseph.egry@testamericainc.com		Page: Page 1 of 14 1 of 4
Company: Clean Harbors Environmental Services Inc				Job #:
Address: 42 Longwater Drive	Due Date Requested:			
City: Norwell	TAT Requested (days): 7 days.			
State, Zip: MA, 02061				
Phone:	PO #: Purchase Order Requested			
Email: Talley.Johnd@CleanHarbors.com	WO #:			
Project Name: Clean Harbors Coffeyville	Project #: 28002104			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date (2012)	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - (MOD) Appendix IX Volatiles list - short	6010B - Ca,K,Na,Mg	6010B - Iron	300.0_28D - Chloride	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	D	D	N	N		
MW-6B	4/25	1215	G	Water	N	N	X						
MW-7B	4/24	1510	|	Water	N	N	X						
MW-7B	4/23	1135	|	Water	N	N	X						
MW-10B	4/25	1330	|	Water	N	N	X						
MW-11B	4/25	1155	|	Water	N	N	X						
MW-12B	4/25	1245	|	Water	N	N	X						
MW-12B	4/25	1405	|	Water	N	N	X						
MW-20B	4/24	1440	|	Water	N	N	X						
MW-21B	4/23	1605	|	Water	N	N	X						
MW-24B	4/25	1050	|	Water	N	N	X						
MW-26B	4/24	1630	√	Water	N	N	X						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FedEx Express Overnight	
Relinquished by: [signature]	Date/Time: 4/25/2012 @ 1530	Company: CHFS	Received by:	Date/Time: / Company:
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 546370 | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: J. Talley / M. Bartlett	Lab PM: Egry, Joseph J	Carrier Tracking No(s):	COC No: 280-16244-7589.1
Client Contact: Mr. John Talley	Phone: 781-249-3966	E-Mail: joseph.egry@testamericainc.com		Page: Page 1 of 1 - 2 of 4
Company: Clean Harbors Environmental Services Inc				Job #: 2

Address: 42 Longwater Drive	Due Date Requested:	
City: Norwell	TAT Requested (days): 7 days	
State, Zip: MA, 02061		
Phone:	PO #: Purchase Order Requested	
Email: Talley.Johnd@CleanHarbors.com	WO #:	
Project Name: Clean Harbors Coffeyville	Project #: 28002104	
Site:	SSOW#:	

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)
Other:

Sample Identification	Sample Date (2012)	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - (MOD) Appendix IX Volatiles list - short	6010B - Ca,K,Na,Mg	6010B - Iron	300.0_28D - Chloride	2320B - Alkalinity								Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	A	D	D	N	N								X	
MW-28A	4/22	1124	G	Water															2	
MW-28B	4/22	1145		Water															2	
MW-29A	4/22	1615		Water															2	
MW-29B	4/22	1545		Water															2	
MW-30A	4/23	1010		Water															2	
MW-30B	4/23	1045		Water															2	
MW-31A	4/22	1145		Water															2	
MW-31B	4/22	1210		Water															2	
MW-32B	4/22	1455		Water															2	
MW-33B	4/22	1425		Water															2	
MW-34B	4/22	1345		Water															2	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FedEx Express overnight	
Relinquished by:	Date/Time: 4/25/2012 @ 1530	Company CHES	Received by:	Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 546370	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: J. Talley / A. Bartholette	Lab PM: Egry, Joseph J	Carrier Tracking No(s):	COC No: 280-16244-7589.1
Client Contact: Mr. John Talley	Phone: 781-247-3966	E-Mail: joseph.egry@testamericainc.com		Page: Page 1 of 14 ~~3 of 4~~
Company: Clean Harbors Environmental Services Inc				Job #:

Address: 42 Longwater Drive	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Norwell	TAT Requested (days): 7 days		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: MA, 02061			
Phone:	PO #: Purchase Order Requested		Other:
Email: Talley.Johnd@CleanHarbors.com	WO #:		
Project Name: Clean Harbors Coffeyville	Project #: 28002104		
Site:	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - (MOD) Appendix IX Volatiles list - short	6010B - Ca,K,Na,Mg	6010B - Iron	300.0_28D - Chloride	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
	2012		Preservation Code:				A	D	D	N	N		
MW-25B	4/22	1340	G	Water	N	N	X						
MW-36B	4/23	1450		Water	N	N	X						
MW-37B	4/23	1320		Water	N	N	X						
PF-9A	4/24	1230		Water	N	N	X						
PF-9B	4/24	0915		Water	N	N	X						
PF-13B	4/24	1045		Water	N	N	X						
PF-14B	4/24	1200		Water	N	N	X						
MW-3	4/24	1355		Water	N	N	X						
MW-4	4/24	1425		Water	N	N	X						
SP-16	4/23	1525		Water	N	N	X						
Adams-A	4/23	1125	↓	Water	N	N	X						

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FedEx Express Overnight	
Relinquished by: John Talley	Date/Time: 4/25/2012 @ 1530	Company: CHES	Received by:	Date/Time: / Company:
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: / Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: / Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 546370 | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: J. Talley / M. Bartlett	Lab PM: Egry, Joseph J	Carrier Tracking No(s):	COC No: 280-16244-7589.1
Client Contact: Mr. John Talley	Phone: 781-247-3966	E-Mail: joseph.egry@testamericainc.com		Page: Page 1 of 14 4 of 4
Company: Clean Harbors Environmental Services Inc				Job #:
Address: 42 Longwater Drive	Due Date Requested:			
City: Norwell	TAT Requested (days): 7 days.			
State, Zip: MA, 02061				
Phone:	PO #: Purchase Order Requested			
Email: Talley.Johnd@CleanHarbors.com	WO #:			
Project Name: Clean Harbors Coffeyville	Project #: 28002104			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date (2012)	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - (MOD) Appendix IX Volatiles list - short	6010B - Ca,K,Na,Mg	6010B - Iron	300.0_28D - Chloride	2320B - Alkalinity									Total Number of containers	Special Instructions/Note:
				Preservation Code:			A	D	D	N	N										
Adams-BF	4/23	1115	G	Water	N	N	X														
Adams-AF	4/23	1135		Water	N	N	X														
DUP-1	4/25	1200		Water	N	N	X														
DUP-2	4/25	1200		Water	N	N	X														
DUP-3	4/25	1210		Water	N	N	X														
FB-1	4/25	0945		Water	N	N	X														
Trip Blank-1				Water	N	N	X													2	
				Water																	
				Water																	
				Water																	
				Water																	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ________ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment: FedEx Express Overnight	
Relinquished by: J. Talley	Date/Time: 4/25/2012 @ 1530	Company: CHES	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.: 546370

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler:	Lab PM: Egry, Joseph J	Carrier Tracking No(s):	COC No: 280-16244-7589.1
Client Contact: Mr. John Talley	Phone: 781-247-3966	E-Mail: joseph.egry@testamericainc.com		Page: Page 1 of 14 — 1 of 1
Company: Clean Harbors Environmental Services Inc				Job #:

Address: 42 Longwater Drive	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Norwell	TAT Requested (days): 7 working days		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)
State, Zip: MA, 02061			
Phone: 781-247-3966	PO #: Purchase Order Requested		Other:
Email: Talley.Johnd@CleanHarbors.com	WO #:		
Project Name: Clean Harbors Coffeyville	Project #: 28002104		
Site:	SSOW#:		

Sample Identification	Sample Date (2012)	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - (MOD) Appendix IX Volatiles list - short	6010B - Ca,K,Na,Mg	6010B - Iron	300.0_28D - Chloride	2320B - Alkalinity								Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	D	D	N	N									
MW-2	4/26	1110	G	Water	N	N		X	X	X	X									
MW-5	4/27	1110		Water	N	N		X	X	X	X									
MW-6	4/27	1110		Water	N	N		X	X	X	X									
GW-2	4/26	1345		Water	N	N		X	X	X	X									
TW-1	4/26	1515		Water	N	N		X	X	X	X									
GW-5	4/26	1435		Water	N	N		X	X	X	X									
TW-2	4/27	1135		Water	N	N		X	X	X	X									
TW-5	4/27	1105	↓	Water	N	N		X	X	X	X									
				Water																
				Water																
				Water																

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	[signature]	4/27/12 @ 1830				
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 546351	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: J. Talley/M. Reichelt	Lab PM: Egry, Joseph J	Carrier Tracking No(s):	COC No: 280-16244-7589.1
Client Contact: Mr. John Talley	Phone: 781-247-3966	E-Mail: joseph.egry@testamericainc.com		Page: Page 1 of 14 ~~1 of 14~~ 2 of 2
Company: Clean Harbors Environmental Services Inc				Job #:
Address: 42 Longwater Drive	Due Date Requested:			
City: Norwell	TAT Requested (days): 7 days			
State, Zip: MA, 02061				
Phone: 781-247-3966	PO #: Purchase Order Requested			
Email: Talley.Johnd@CleanHarbors.com	WO #:			
Project Name: Clean Harbors Coffeyville	Project #: 28002104			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date (2012)	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - (MOD) Appendix IX Volatiles list - short	6010B - Ca,K,Na,Mg	6010B - Iron	300.0_28D - Chloride	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	D	D	N	N		
GW-5	4/26	1135	G	Water	N	N	X						
TW1-2	4/27	1125		Water	N	N	X						
TW1-5	4/27	1155		Water	N	N	X						
Trip Blank-2				Water	N	N	X						
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		4/27/12@1830	AES			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.: 546351
Cooler Temperature(s) °C and Other Remarks:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: J. Talley, M. Bartlett	Lab PM: Egry, Joseph J	Carrier Tracking No(s):	COC No: 280-16244-7589.1
Client Contact: Mr. John Talley	Phone: 781-247-3966	E-Mail: joseph.egry@testamericainc.com		Page: Page 1 of 14 1 of 2
Company: Clean Harbors Environmental Services Inc		**Analysis Requested**		Job #:
Address: 42 Longwater Drive	**Due Date Requested:**			**Preservation Codes:**
City: Norwell	**TAT Requested (days):** 7 days			
State, Zip: MA, 02061				
Phone:	PO #: Purchase Order Requested			
Email: Talley.Johnd@CleanHarbors.com	WO #:			
Project Name: Clean Harbors Coffeyville	Project #: 28002104			
Site:	SSOW#:			Other:

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Sample Identification	Sample Date (2012)	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - (MOD) Appendix IX Volatiles list - short	6010B - Ca,K,Na,Mg	6010B - Iron	300.0_28D - Chloride	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
				Preservation Code:			A	D	D	N	N		
IW2-5	4/26	1135	G	Water	N	N	X	X	X	X	X	7	
IW2-7	4/26	1050		Water	N	N	X	X	X	X	X	7	
IW2-10	4/26	1000		Water	N	N	X	X	X	X	X	7	
M-7	4/26	1220		Water	N	N	X	X	X	X	X	7	
M-8	4/26	0930		Water	N	N	X	X	X	X	X	7	
M-1	4/26	1636		Water	N	N	X	X	X	X	X	7	
M-2	4/26	1400		Water	N	N	X					3	
M-5	4/27	1210		Water	N	N	X					3	
M-6	4/27	1000		Water	N	N	X					3	
GW-2	4/26	1555		Water	N	N	X					3	
TW-1	4/26	1515	↓	Water	N	N	X					3	

Possible Hazard Identification
[X] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* [ ] *Poison B* [ ] *Unknown* [ ] *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] *Return To Client* [X] *Disposal By Lab* [ ] *Archive For* ______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
J. Talley	4/27/12 @ 1830	CHES			

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 546351 | Cooler Temperature(s) °C and Other Remarks: